

What is Claimed is:

1. A utility lighter, comprising:

5 a casing having a lighter housing, which has an internal cavity and a pusher cavity therein, and a tubular lighter rod extended from said lighter housing, wherein said lighter housing further has a safety slot provided on a sidewall of said lighter housing to communicate said internal cavity with an exterior of said lighter housing;

10 a fuel storage housing disposed in said internal cavity of said lighter housing for storing liquefied gaseous fuel;

15 an ignition system which comprises:

10 a gas emitting nozzle communicated with said fuel storage housing for releasing gaseous fuel;

15 a gas tube extended from said gas emitting nozzle to a top end portion of said lighter rod to form an ignition tip therein;

15 a piezoelectric unit supported in said internal cavity for generating piezoelectricity, wherein said piezoelectric unit comprises a movable part and a spark generating tip extended to said ignition tip through said lighter rod for generating sparks when said movable part of said piezoelectric unit is depressed; and

20 a pusher button which is supported in said pusher cavity in a slidably movable manner to drive said movable part of said piezoelectric unit to be depressed; and

20 a safety arrangement, which comprises:

25 a stop post extended from said pusher button;

30 a locking member, which comprises a switching member slidably mounted on said sidewall of said casing along said safety slot and a stopper extended from said switching member to said internal cavity through said safety slot to align with said stop

post, wherein said switching member is arranged to slidably drive said stopper between a locked position and an unlocked position, wherein at said locked position, said stop post is blocked by said stopper so as to block a downward movement of said pusher button for ignition, and at said unlocked position, said switch member is arranged to drive said stopper to move to an offset position that allows said pusher button to be depressed so as to depress said movable part of said piezoelectric unit for igniting said utility lighter; and

5 a resilient element supported in said internal cavity of said lighter housing for urging a pushing force to said locking member to normally retain said locking member at said locked position.

10 2. The utility lighter, as recited in claim 1, wherein said safety slot is transversely formed on said sidewall of said lighter housing to guide said locking member in a sideward movable manner, wherein said safety slot has a predetermined length to allow said stopper to slide from said locked position that said stopper is aligned with said stop post to said unlocked position that said stopper is moved offset from said 15 stop post.

3. The utility lighter, as recited in claim 1, wherein said stopper is integrally extended from said switching member to said internal cavity through said safety slot such that said switching member is driven to slide on said sidewall of said casing along said safety slot to drive said stopper from said locked position to said unlocked position.

20 4. The utility lighter, as recited in claim 2, wherein said stopper is integrally extended from said switching member to said internal cavity through said safety slot such that said switching member is driven to slide on said sidewall of said casing along said safety slot to drive said stopper from said locked position to said unlocked position.

25 5. The utility lighter, as recited in claim 1, wherein said stop post is integrally and downwardly extended from said pusher button, wherein a bottom end of said stop post is extended towards said stopper so as to block up said downward movement of said pusher button.

6. The utility lighter, as recited in claim 4, wherein said stop post is integrally and downwardly extended from said pusher button, wherein a bottom end of

1 said stop post is extended towards said stopper so as to block up said downward movement of said pusher button.

2 7. The utility lighter, as recited in claim 1, wherein said resilient element  
3 comprises a coil spring which is disposed in said internal cavity and is provided between  
4 said locking member and an inner wall of said internal cavity wherein said resilient  
5 element has two end portions biasing against said stopper of said locking member and  
6 said inner wall of said internal cavity to urge and retain said stopper to align with said  
7 stop post to block up said pusher button from being slid downwardly so as to lock up said  
8 pusher button from ignition.

9 10. The utility lighter, as recited in claim 4, wherein said resilient element  
11 comprises a coil spring which is disposed in said internal cavity and is provided between  
12 said locking member and an inner wall of said internal cavity wherein said resilient  
13 element has two end portions biasing against said stopper of said locking member and  
14 said inner wall of said internal cavity to urge and retain said stopper to align with said  
15 stop post to block up said pusher button from being slid downwardly so as to lock up said  
16 pusher button from ignition.

17 9. The utility lighter, as recited in claim 9, wherein said resilient element  
18 comprises a coil spring which is disposed in said internal cavity and is provided between  
19 said locking member and an inner wall of said internal cavity wherein said resilient  
20 element has two end portions biasing against said stopper of said locking member and  
21 said inner wall of said internal cavity to urge and retain said stopper to align with said  
22 stop post to block up said pusher button from being slid downwardly so as to lock up said  
23 pusher button from ignition.

24 10. The utility lighter, as recited in claim 7, wherein said safety arrangement  
25 further comprises a holding unit which has a retaining groove formed on said stopper and  
26 comprises a coil holder integrally extended from said sidewall of said internal cavity,  
27 wherein said respective end portion of said resilient element is fittingly engaged with said  
28 retaining groove to lock up said locking member on said sidewall of said casing in a  
29 slidably movable manner while a coil body of said resilient element is securely mounted  
30 to said coil holder so as to secure said two end portion of said resilient element to bias  
against said locking member and said inner wall of said internal cavity.

11. The utility lighter, as recited in claim 8, wherein said safety arrangement further comprises a holding unit which has a retaining groove formed on said stopper and comprises a coil holder integrally extended from said sidewall of said internal cavity, wherein said respective end portion of said resilient element is fittingly engaged with said  
5 retaining groove to lock up said locking member on said sidewall of said casing in a slidably movable manner while a coil body of said resilient element is securely mounted to said coil holder so as to secure said two end portion of said resilient element to bias against said locking member and said inner wall of said internal cavity.

12. The utility lighter, as recited in claim 9, wherein said safety arrangement  
10 further comprises a holding unit which has a retaining groove formed on said stopper and comprises a coil holder integrally extended from said sidewall of said internal cavity, wherein said respective end portion of said resilient element is fittingly engaged with said retaining groove to lock up said locking member on said sidewall of said casing in a slidably movable manner while a coil body of said resilient element is securely mounted  
15 to said coil holder so as to secure said two end portion of said resilient element to bias against said locking member and said inner wall of said internal cavity.

13. The utility lighter, as recited in claim 1, further comprises a gas releasing unit for control a flow of said liquefied fuel, wherein said gas releasing unit comprises a gas lever having a pivot end engaged with said gas emitting nozzle and an actuating end  
20 arranged to be depressed so as to pivotally lift up said gas emitting nozzle for releasing said liquefied fuel, and a gas actuating arm downwardly extended from said pusher button towards said actuating end of said gas lever such that when said pusher button is depressed, said actuating arm is driven to depress said actuating end for releasing said liquefied fuel so as to ignite said liquefied fuel at said ignition tip.

25 14. The utility lighter, as recited in claim 6, further comprises a gas releasing unit for control a flow of said liquefied fuel, wherein said gas releasing unit comprises a gas lever having a pivot end engaged with said gas emitting nozzle and an actuating end arranged to be depressed so as to pivotally lift up said gas emitting nozzle for releasing  
30 said liquefied fuel, and a gas actuating arm downwardly extended from said pusher button towards said actuating end of said gas lever such that when said pusher button is depressed, said actuating arm is driven to depress said actuating end for releasing said liquefied fuel so as to ignite said liquefied fuel at said ignition tip.

15. The utility lighter, as recited in claim 9, further comprises a gas releasing unit for control a flow of said liquefied fuel, wherein said gas releasing unit comprises a gas lever having a pivot end engaged with said gas emitting nozzle and an actuating end arranged to be depressed so as to pivotally lift up said gas emitting nozzle for releasing 5 said liquefied fuel, and a gas actuating arm downwardly extended from said pusher button towards said actuating end of said gas lever such that when said pusher button is depressed, said actuating arm is driven to depress said actuating end for releasing said liquefied fuel so as to ignite said liquefied fuel at said ignition tip.

16. The utility lighter, as recited in claim 12, further comprises a gas releasing unit for control a flow of said liquefied fuel, wherein said gas releasing unit comprises a gas lever having a pivot end engaged with said gas emitting nozzle and an actuating end arranged to be depressed so as to pivotally lift up said gas emitting nozzle for releasing 10 said liquefied fuel, and a gas actuating arm downwardly extended from said pusher button towards said actuating end of said gas lever such that when said pusher button is depressed, said actuating arm is driven to depress said actuating end for releasing said liquefied fuel so as to ignite said liquefied fuel at said ignition tip.

17. The utility lighter, as recited in claim 13, wherein said gas actuating arm has a driving shoulder provided between a bottom end of said gas actuating arm and a bottom side of said pusher button to substantially engage with said actuating end of said 20 gas lever so as to pivotally lift up said pivot end thereof when said pusher button is depressed downwardly.

18. The utility lighter, as recited in claim 14, wherein said gas actuating arm has a driving shoulder provided between a bottom end of said gas actuating arm and a bottom side of said pusher button to substantially engage with said actuating end of said 25 gas lever so as to pivotally lift up said pivot end thereof when said pusher button is depressed downwardly.

19. The utility lighter, as recited in claim 15, wherein said gas actuating arm has a driving shoulder provided between a bottom end of said gas actuating arm and a bottom side of said pusher button to substantially engage with said actuating end of said 30 gas lever so as to pivotally lift up said pivot end thereof when said pusher button is depressed downwardly.

20. The utility lighter, as recited in claim 16, wherein said gas actuating arm has a driving shoulder provided between a bottom end of said gas actuating arm and a bottom side of said pusher button to substantially engage with said actuating end of said gas lever so as to pivotally lift up said pivot end thereof when said pusher button is  
5 depressed downwardly.

21. The utility lighter, as recited in claim 17, wherein said gas lever has a slanted engaging surface formed on said actuating end and said gas actuating arm has a corresponding slanted driving surface formed at said bottom end to slidably engage with said slanted engaging surface of said gas lever so as to substantially guide said gas actuating arm to slide along said slanted engaging surface of said gas lever until said driving shoulder of said gas actuating arm is engaged with said actuating end of said gas lever.  
10

22. The utility lighter, as recited in claim 18, wherein said gas lever has a slanted engaging surface formed on said actuating end and said gas actuating arm has a corresponding slanted driving surface formed at said bottom end to slidably engage with said slanted engaging surface of said gas lever so as to substantially guide said gas actuating arm to slide along said slanted engaging surface of said gas lever until said driving shoulder of said gas actuating arm is engaged with said actuating end of said gas lever.  
15

23. The utility lighter, as recited in claim 19, wherein said gas lever has a slanted engaging surface formed on said actuating end and said gas actuating arm has a corresponding slanted driving surface formed at said bottom end to slidably engage with said slanted engaging surface of said gas lever so as to substantially guide said gas actuating arm to slide along said slanted engaging surface of said gas lever until said driving shoulder of said gas actuating arm is engaged with said actuating end of said gas lever.  
20  
25

24. The utility lighter, as recited in claim 20, wherein said gas lever has a slanted engaging surface formed on said actuating end and said gas actuating arm has a corresponding slanted driving surface formed at said bottom end to slidably engage with said slanted engaging surface of said gas lever so as to substantially guide said gas actuating arm to slide along said slanted engaging surface of said gas lever until said  
30

driving shoulder of said gas actuating arm is engaged with said actuating end of said gas lever.